

WHAT IS CLAIMED IS:

1. A UV-curable pressure-sensitive adhesive composition comprising a photoinitiator which has a molar absorptivity at 365 nm of at least  $1,000 \text{ mol}^{-1} \cdot \text{cm}^{-1}$  and a maximum absorption wavelength of at least 420 nm on a long wavelength side.  
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2. The UV-curable pressure-sensitive adhesive composition according to claim 1, which contains the photoinitiator in an amount of 0.4 to 20 wt.% based on the whole pressure-sensitive adhesive composition in terms of solid content.  
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3. The UV-curable pressure-sensitive adhesive composition according to claim 1, wherein the photoinitiator is 2-benzyl-2-dimethylamino-1-(4-morpholinophenyl)-butanone-1.  
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4. The UV-curable pressure-sensitive adhesive composition according to claim 1, wherein the photoinitiator is bis(2,4,6-trimethylbenzoyl)-phenylphosphine oxide.  
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5. A UV-curable pressure-sensitive adhesive composition, which comprises:  
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a pressure-sensitive adhesive polymer;

a polymerization component; and

a photoinitiator,

wherein the photoinitiator has a molar absorptivity

5 at 365 nm of at least  $1,000 \text{ mol}^{-1} \cdot \text{cm}^{-1}$  and a maximum absorption wavelength of at least 420 nm on a long wavelength side and the UV-curable pressure-sensitive adhesive composition contains the photoinitiator in an amount of 0.4 to 20 wt.% based on the whole pressure-

10 sensitive adhesive composition in terms of solid content.

6. A pressure-sensitive adhesive sheet comprising:

a photo-transmitting base film; and

15 a layer comprising a UV-curable pressure-sensitive adhesive composition as claimed in claim 1.

7. The pressure-sensitive adhesive sheet according to claim 6, which is for use in processing, fixation or  
20 surface protection of a semiconductor wafer.